

IN THE CLAIMS:

Please amend the claims as follows.

Claim 1 (Canceled).

Claim 2 (Currently Amended): The back illuminated photodetector according to Claim [[1]] 10, further comprising a supporting film provided on the first superficial surface layer of the semiconductor substrate to support the semiconductor substrate.

Claim 3 (Original): The back illuminated photodetector according to Claim 2, further comprising a filling electrode penetrating through the supporting film and connected electrically to the impurity semiconductor region at one end thereof.

Claim 4 (Currently Amended): The back illuminated photodetector according to Claim [[1]] 10, wherein the window plate is made of an optically transparent material and is bonded to the outer edge portion by anodic bonding.

Claim 5 (Original): The back illuminated photodetector according to Claim 4, wherein the optically transparent material is quartz, and wherein the window plate is bonded to the outer edge portion via a member containing alkali metal.

Claim 6 (Currently Amended): The back illuminated photodetector according to Claim [[1]] 10, wherein the window plate is bonded to the outer edge portion via a metal layer.

Claim 7 (Currently Amended): The back illuminated photodetector according to Claim [[1]] 10, wherein a stepped portion is formed in a side surface of the semiconductor substrate or in a side surface of the window plate.

Claim 8 (Currently Amended): The back illuminated photodetector according to Claim [[1]] 10, wherein a highly-doped impurity semiconductor layer with impurities of the first conductive type added thereto at a high concentration is provided in the second superficial surface layer in the an outer edge portion of the semiconductor substrate.

Claim 9 (Currently Amended): The back illuminated photodetector according to Claim [[1]] 10, wherein a highly-doped impurity semiconductor layer with impurities of the first conductive type added thereto at a high concentration is provided in the a bottom portion of the recessed portion within the second superficial surface layer of the semiconductor substrate.

Claim 10 (Currently Amended): The A back illuminated photodetector comprising: according to Claim 4

a first conductive type semiconductor substrate;

a second conductive type impurity semiconductor region provided in a first superficial surface layer of the semiconductor substrate;

a recessed portion for incidence of to-be-detected light formed in a second surface of the semiconductor substrate and in an area opposite the impurity semiconductor region; and

a window plate bonded to an outer edge portion of the recessed portion in such a manner as to cover the recessed portion to transmit the to-be-detected light,

wherein a highly-doped impurity semiconductor region with impurities of the first conductive type added thereto at a high concentration is exposed across the an entire side surface of the semiconductor substrate.

Claim 11 (Currently Amended): The A back illuminated photodetector comprising:  
according to Claim 1

a first conductive type semiconductor substrate;  
a second conductive type impurity semiconductor region provided in a first superficial  
surface layer of the semiconductor substrate;  
a recessed portion for incidence of to-be-detected light formed in a second surface of the  
semiconductor substrate and in an area opposite the impurity semiconductor region; and  
a window plate bonded to an outer edge portion of the recessed portion in such a manner  
as to cover the recessed portion to transmit the to-be-detected light,

wherein the window plate has a square cross-sectional shape with at least one corner being chamfered in a plane perpendicular to the a thickness direction thereof.

Claims 12 - 15 (Canceled).

Claim 16 (New): The back illuminated photodetector according to Claim 11, further comprising a supporting film provided on the first superficial surface layer of the semiconductor substrate to support the semiconductor substrate.

Claim 17 (New): The back illuminated photodetector according to Claim 16, further comprising a filling electrode penetrating through the supporting film and connected electrically to the impurity semiconductor region at one end thereof.

Claim 18 (New): The back illuminated photodetector according to Claim 11, wherein the window plate is made of an optically transparent material and is bonded to the outer edge portion by anodic bonding.

Claim 19 (New): The back illuminated photodetector according to Claim 18, wherein the optically transparent material is quartz, and wherein the window plate is bonded to the outer edge portion via a member containing alkali metal.

Claim 20 (New): The back illuminated photodetector according to Claim 11, wherein the window plate is bonded to the outer edge portion via a metal layer.

Claim 21 (New): The back illuminated photodetector according to Claim 11, wherein a stepped portion is formed in a side surface of the semiconductor substrate or in a side surface of the window plate.

Claim 22 (New): The back illuminated photodetector according to Claim 11, wherein a highly-doped impurity semiconductor layer with impurities of the first conductive type added thereto at a high concentration is provided in the second surface in an outer edge portion of the semiconductor substrate.

Claim 23 (New): The back illuminated photodetector according to Claim 11, wherein a highly-doped impurity semiconductor layer with impurities of the first conductive type added thereto at a high concentration is provided in a bottom portion of the recessed portion within the second surface of the semiconductor substrate.